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ABSTRACT

This paper details an effort at the graduate inservice level to utilize schools and school settings as a base for theory building and conceptual growth for the individual teacher. Three basic assumptions support this effort. First, the position is taken that the most effective educational program for children is one that grows out of and is guided by the children's needs and interests as expressed through children's own activity. Second, the teacher's primary role is that of analytical, ongoing responding based on the children's own decisions and choices about learning. And third, teacher analytical responses of the type desired are influenced by the teacher's conceptual frame of reference and by how the teacher thinks about educational purpose. Three class elements are then identified as effective in promoting teachers' conceptual growth: constants, themes, and purposes. Constants establish the educational setting; themes bring focus to the knowledge/substance of the course; while the processes bring about the conceptual growth. The notion is advanced that it is possible to design learning settings that promote conceptual growth in teachers using these three elements, and that these learning settings are not unlike those that are effective for children. (MM)

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EXPERIENCING CONCEPTUAL GROWTH THROUGH STUDYING TEACHING AND LEARNING

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EXPERIENCING CONCEPTUAL GROWTH
THROUGH STUDYING TEACHING AND LEARNING

In his excellent analysis of public schooling in the United States, Crisis in the Classroom, Charles Silberman deals extensively with what he terms the "mindlessness" of much of what passes for teaching in public schools today. By "mindlessness" Mr. Silberman is referring to what he has observed to be a collection of diverse, varied, idiosyncratic, and even contradictory, teaching practices that lack any systematic, coherent or rational base. What is lacking, according to Mr. Silberman, is a sense of purpose, a clear and guiding notion of what teaching and learning can and ought to be. This sense of purpose is central to Mr. Silberman's criticism of the schools, and he argues that "...the central task of teacher education...is to provide teachers with a sense of purpose, or, if you will, with a philosophy of education. This means developing teachers' ability and their desire to think seriously, deeply and continuously about the ways in which their curriculum and teaching methods, classroom and school organization, testing and grading procedures, affect purpose and are affected by it."

The kind of purpose Mr. Silberman refers to cannot be developed in methods courses, at least not in those conventional methods courses which have as their central objective the securing of certain kinds of specific methodological competence. As Dewey stated more than seventy years ago, "to place the emphasis upon the securing of proficiency in teaching and discipline puts the attention of the...teacher in the wrong place, and tends to fix it in the wrong direction... For immediate skill may be got at the cost of the power to keep on growing. The teacher who leaves the professional school with power in managing a class of children may appear to superior

advantage the first day, the first week, the first month, or even the first year. But later progress may with such consist only in perfecting and refining skills already possessed. Such persons seem to know how to teach but they are not students of teaching."

The task of instilling in teachers a sense of purpose and a deep commitment to becoming students of teaching presents a significant challenge for teacher educators. It is a challenge which has gone largely unmet at both the preservice and inservice levels of teacher education. We are all painfully familiar with the conventional criticisms leveled at both preservice and inservice teacher education, and it is not necessary to restate these here. Perhaps it is sufficient to say that, at both levels, training programs have, generally, failed to provide practitioners with either a sense of purpose or with a clear notion of themselves as students of teaching. To put it another way, we have failed to provide teachers with the tools essential to reflective and sustained professional growth.

The challenge remains. Is it possible to design learning settings and activities which have, as their primary intent, the conceptual growth of the teacher? And, if so, what are some critical dimensions and elements of such learning settings and activities? The remainder of this paper details a modest effort at the graduate inservice level which appears to have had an impact on the conceptual growth of the teachers involved, an effort to utilize, if you will, schools and school settings as a base for theory building for the individual teacher.

Rationale

Three basic assumptions underpin and support this effort. Two of these assumptions relate to the nature of children's learning and to

the teacher role that is logically derived from this particular view of children's learning. The third assumption is, essentially, an hypothesis about the kind of inservice program which provides the conceptual frame of reference essential to the assumption of the particular teacher role. Since these assumptions are central to this effort, they are briefly described.

First, and most centrally, the position is taken that the most effective educational program for children is one which grows out of and is guided by children's needs and interests as these are expressed through children's own activity.

Secondly, and consistent with this view of children's learning, the teacher's primary role is that of analytical responding. That is, in order for children to sustain involvement in learning, the teacher's analytical responding must be ongoing and based on the children's own decisions and choices about learning.

And finally, teacher analytical responses of the type desired are influenced by the teacher's conceptual frame of reference, by how the teacher thinks about educational purpose. Teacher training experiences which have as their intent to develop or change the teacher's conceptual frame of reference must go beyond the kind of informational input which results in mere methodological competence. In effect, they must actively involve teachers in the learning process in a way that personally validates the experience both for teachers, and indirectly, for their students. That is, teachers must see their own learning experiences as equally valid for their children. It follows, then, that a learning setting which is valid for the adult learner/teacher would be similar to a learning setting which is valid for children. Thus, the training assumption, or hypothesis, that the teacher's own sustained involvement in learning can be nurtured by participatory experiences

designed for the adult learner/teacher which are based on a conceptual framework equally appropriate for nurturing children's learning. Active participation in learning can occur through (1) interaction with peers, teachers and children; (2) interaction with a carefully planned and organized learning environment; and (3) a high level of personal input in the decisions about one's own choices for learning and the evaluating of that learning.

Important components of this conceptual framework for teacher education require careful attention to (1) the modeling of verbal and non-verbal behaviors by the instructional staff which are conscious, deliberate and intended to facilitate students' (inservice teachers) involvement with their own learning; (2) the careful planning and organization of a well provisioned learning environment which encourages students (inservice teachers) to participate in personal decisions/choices about their own learning; (3) the basing of curriculum building upon information gained from students' (inservice teachers) own decisions/choices about learning; and (4) the provision of opportunities to study children's learning over a period of time by planning and implementing learning activities drawing heavily from the children's community setting as a source of content.

External support for the components of this conceptual framework are derived from efforts in several fields. The impact of modeling upon learning has been derived from Social Learning Theory (Bandura, 1971). The significance of carefully planned and organized learning settings has been detailed in studies of learning environments (Jones, 1974; Kritchevsky, Prescott and Walling, 1969) and basic furnishings to support a learning

environment (Loughlin, 1974). Insights into curricular decision making can be derived from (1) studies of child growth and development with particular attention given to Piaget (Issacs, 1974) and (2) studies of curriculum and teaching (Hughes, 1976; Schwaab, 1975; and Yardley, 1974).

Constants, Themes and Processes

Before identifying and describing some of the class elements which were felt to be effective in promoting teachers' conceptual growth, it seems important to restate the basic assumption which supports the organizational structure of the course. This assumption is, briefly, that the teacher's conceptual level will influence the quality of analytical responses made, and that conceptual growth can be nurtured through the teacher's own sustained involvement in participatory experiences designed for the adult learner/teacher which are based on a conceptual framework equally appropriate for nurturing children's learning.

In stating this assumption it is important to distinguish between role playing and modeling. At no time did the class instructors model the role of the classroom teacher, and at no time did the students (inservice teachers) assume the role of children. At all times the class instructors endeavored to model adult behaviors, to provide adult level tasks and, in general, to maintain an intellectually rigorous setting. It is the organization of the day and the tempo and variability of the tasks which were felt to be equally appropriate for adult and child learners, and not the content provided.

In conceptualizing the class for this description, it was found useful to organize the class elements under three headings. These elements are identified and briefly described, and a visual presentation has been

prepared to illustrate their interaction.

Elements

Constants	Themes	Processes
Planned Provision for Input	Teacher Behavior	Modeling
Planned Provision for Variability	Analysis	Experiencing
Planned Provision for Personal-Interpersonal Concerns	Learning Arrangements	Conceptualizing
Planned Provision for Redundancy	Physical Environment	Working with Children
Planned Provision for Orchestration		Personalizing

Constants. Constants may be regarded as pervasive instructional concerns. That is, in the planning of class experiences special attention was given to providing a balanced, rotational exposure to these organizational strands. For our purposes, constants may be regarded as organizational universals in the sense that they were regarded as essential ingredients of a learning setting that is based on the assumption of equal appropriateness for both adult and child learners. The centrality of Constants cannot be over emphasized. It is the pervasive and thoughtful attention to these learning setting elements which promotes transferability and internalization.

Perhaps a brief description of Constants would be useful at this point. "Planned Provision for Input" means, quite directly, that the instructional staff did have an agenda. Content organized around the Themes was presented, and student (inservice teachers) input of many kinds

was solicited. "Planned Provision for Variability" was an integral part of each day's activities. Content was presented in a number of forms and through different media, the type and tempo of activities were varied, groupings varied in both composition and tasks, etc. "Planned Provision for Personal/Interpersonal Concerns" was met through instructor determined groupings, self-selected groupings, task preference groupings, self-determined activities, etc. "Planned Provision for Redundancy" was provided through deliberately planned follow-up activities, through the integration of content, through instructor and student (inservice teachers) modeling, through work with children, through classroom visitations, etc. "Planned Provision for Orchestration" was a pervasive concern. Content was deliberately integrated, new material was related to past learnings, activities were integrative in nature, events were planned to move according to student (inservice teachers) needs, etc.

Themes. Themes may be regarded as the organizers around which the class content was developed. It is important to note that themes and content were not viewed as ends in themselves. Rather, the Themes were regarded as useful descriptive organizers, and the content organized around the Themes served an initial informative function. Through the Process experiences which were planned for the students (inservice teachers), content was transformed and personally reformulated. It is in this sense that content, rather than being an end in itself, was regarded as a formative tool for conceptual growth.

Content woven into the Themes was integrated and multidisciplinary, drawn from many sources in the behavorial and social sciences. Content drawn from the disciplines included data relating to child development,

curriculum theory, group processes and socialization, to list a few examples. Each area was necessary and present in each of the four Theme areas.

Perhaps a brief listing of a few specific study areas through which content was thematically focused would be useful at this point. In the Theme "Teacher Behavior", for example, study areas included teacher role, attending to children's cues, reading and interpreting children's cues, responding to children and studying teaching, to name a few. The Theme "Analysis" appeared in the study of teaching, in the observation of children, in the study of environments and in curriculum decision making, to name a few. In the Theme "Learning Arrangements" study areas included children's groupings, group dynamics, peer relations, pacing and peer teaching/learning, to name a few. The Theme "Physical Environment" included study areas related to the organization of space and materials, the provisioning of learning environments and the relationship of space to teacher and child behavior.

Unlike Constants, Themes and the content organized around them are not regarded as universals. For different purposes and for different levels, a different choice of organizers and content would likely be made. For this particular class the themes selected seemed appropriate, although others might well have been equally appropriate.

Processes. In the conventional educational sense of the word, "processes" are inferred events. But "processes" may also be regarded as a systematic series of actions directed toward some end. It is this latter meaning which is most appropriate in this context. For the purposes of this discussion Processes may be regarded as instructor planned events

which are intended to lead the learner (inservice teachers) to a reformulation, or, if you will, to a higher level of conceptualization. These process events were carefully planned by the instructional staff and class activities were deliberately structured to demand their occurrence.

Creating a learning setting which demands the personal reformulation of information is regarded as an important element of the class. Past experience has shown that, by itself, informational input is not highly effective in promoting teachers' conceptual growth. Conversely, planned events which demand the reformulation of input appear to be related to conceptual growth.

Perhaps an example of what is meant by Processes would be useful at this point. Assume, for example, that content is "Modeled" by the class instructors through their arrangement of the class physical environment, through their analysis of the effectiveness of the physical environment, through their use of the physical environment in certain ways, etc. Students (inservice teachers) are encouraged to critically evaluate the effectiveness of the class physical environment, to rearrange the class physical environment to meet their own learning needs, to observe and analyze the summer session children's classrooms, etc. Through the redundancy of verbal and physical "Modeling" and through the process of living in an active, changing physical environment, students (inservice teachers) "Experience" physical environment, learn to view it in many ways and, in general, become highly conscious of concepts related to physical environment. Through "Working with Children" in microteaching and curriculum study groups, they further refine and apply these concepts. They discuss, plan and arrange their microteaching and curriculum study

environments in terms of what they wish to accomplish with children. They observe the effectiveness of the physical environments in which they are functioning as students and they develop an analytical awareness of their own classrooms and other learning settings. And, individually and in groups, they prepare scale layouts of their own classrooms and experiment with different physical arrangements. They are, in effect, "Personalizing" the informational input on "Physical Environment."

What has been learned is not a carbon copy of the informational input, but rather a highly distilled and personally useful set of conceptual tools. Processes such as the ones described will not result in "methodological competence" in the usual sense of the term, but there is evidence to suggest that they are facilitating to the development of conceptual and analytical clarity.

The process events identified in this paper are not advanced as universals, but rather as events which appear to be effective in promoting conceptual growth in teachers. What is clear is that, by itself, informational input is not highly effective in promoting teachers' conceptual growth. Ways must be provided to enable students (inservice teachers) to make personal meanings for their own teaching.

To summarize, it could be said that the Constants establish the educational setting; the Themes bring focus to the knowledge/substance of the course; while the Processes bring about conceptual growth. The interactions between Constants, Themes and Processes produce a high level of redundancy for the students (inservice teachers). Each Theme is encountered again and again, in different settings, and it is used again and again through each of the five Processes.

Class Setting and Organization

It is beyond the scope of this paper, perhaps not even central to its purpose, to provide a detailed description of all class activities, or even a single day's activities. It is hoped that the visual presentation will effectively communicate both the underlying organizational structure of the class and a representative sample of class activities. Accordingly, the following description of the class setting and organization will be brief.

A nine hour graduate credit course was designed for 40 practicing teachers. The course involved an instructional team of three and met daily for a five hour block of time over a period of six weeks. The class was coordinated with an elementary school summer educational program and was housed within the elementary school setting so that children were an ongoing source of study and so that class environment provided strengths and limitations similar to each student's (inservice teacher) own classroom setting.

The organization of the day was designed to provide a well-paced flow in terms of conceptual growth, the processing and validating of input in relationship to previous knowledge and experiences, and the providing for self-selection.

While lectures did provide certain input, much input for processing was introduced through planned committee cycles. Committees were composed of small groups of students (inservice teachers) focusing on a task/activity designed by the instructional staff. Membership in a committee was determined by the staff. Some committee tasks were universal in that all committees dealt with the task over a three day cycle; other committee tasks were planned for a specific group based on data collected concerning needs, strengths and interests of each student (inservice

teacher). Composition of committee membership was changed weekly. In addition to committee membership, every student (inservice teacher) participated in two other kinds of groups which remained constant over the six week period. One group focused on the study of teaching through microteaching sessions with children; the other, curriculum study with children. Children were a source for daily study of teaching and learning. The composition of the study of teaching groups was self-selected. It was felt that a great deal of trust and comfortableness with each other was required in order for successful observation and analysis of microteaching. The instructional staff assigned students (inservice teachers) to curriculum study in order to enhance the variety of characteristics brought to the group. It was felt that a variety of experiences, knowledge backgrounds, and beliefs could be drawn from in the planning, implementing and study of curriculum building over a period of time with a particular group of children.

A large block of time was devoted to self-selection. Students (inservice teachers) became engaged in activities of their own choosing. Learning and confidence were developed through encounters with construction in woodworking, sewing, electricity and auto maintenance, to name a few. Discussions, readings, and thinking were approached and revisited in many forms. Spontaneous groups formed and reformed around mutual interests and self-and group-designed tasks.

Collectively, the class activities were designed to encourage personal conceptual growth through input experiences, through processing and validating experiences with children and with peers, and through the provision of opportunities for the development of personal-interpersonal skills and competencies. These activities were carried out in a setting

which was designed to encourage, even demand, personal decision/choice making, thoughtful analysis and reformulation. The tempo, structure and variability of the activities provided were regarded as appropriate for both adult and child learners. Although the content was at the adult level, the flow of the day and learning arrangements provided were not unlike those that might be provided for children. At all times the class instructors endeavored to model facilitating teacher behavior and a problem solving attitude. Students (inservice teachers) were encouraged to develop their own learning agendas.

Evidence of Conceptual Growth

At the present time there are three sources from which evidence of conceptual growth is available. These are in-class observations and comments, classroom observations, and observations and comments from non-participants.

Some suggestions of conceptual growth were evident during the class. Students' (inservice teachers) writings reflected ongoing efforts to study their own teaching and learning. Students (inservice teachers) placed daily reflections in their individual folders, and these were read and responded to by the instructional staff on an every other day basis. These records revealed that many individuals were rethinking and reformulating their notions of teaching and learning. Individual and group discussions with the class instructors and observations of group and individual behavior in the class setting revealed a great deal of growth, particularly in personal decision/choice making and in analytical skills.

Occasional informal observations in class participants' classrooms are equally encouraging. These observations reveal careful, deliberate interactions with children, awareness of environmental impacts on classroom life and children's learning, and confident decision making about curriculum which is based on knowledge of children and their own choices for learning.

Such observations are useful, and they do reveal a great deal of "surface" behavior. But surface behavior does not always reveal the teacher's conceptual frame of reference. In an effort to determine the possible influence of the class experience on the teacher's conceptual frame of reference, one of the class instructors worked two days each week for one semester in the classrooms of two teachers who had participated in the class. One of the teachers was a class participant three years ago, the other two years ago. This intensive experience enabled the instructor to be involved in ongoing classroom planning, to tap, so to speak, the teachers' conceptual frameworks. The experience was encouraging. There was much evidence of the use of constructs and concepts from the class experience, but not a literal use. These teachers showed a highly personalized and situational use of class experiences. Or, to put it another way, these teachers used constructs and concepts as tools as opposed to ready-made solutions.

Beyond the evidences observed in the class setting and in class participants' classrooms, there are other encouraging signs of conceptual growth. Unsolicited comments from other university instructors in whose classes many former class participants have been enrolled suggest that these students are noticeably thoughtful, intellectually independent and analytical. Principals and curriculum consultants have noted and reported

that the classrooms of former class participants are usually "well organized" and that "difficult" children do better in these classrooms.

These observations are not offered as incontrovertable proof. They are informal, subjective and tentative. But, taken together, they do suggest that something is happening. Better and "harder" data are needed, and presently several doctoral level students are involved in designing instrumentation and methodology which will enable a more precise and objective study of the class and its outcomes.

For the moment, at least, it does not appear unreasonable to cautiously advance the notion that it is indeed possible to design learning settings which promote conceptual growth in teachers, and that these learning settings are not unlike those that are effective for children.

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